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10/804,593	03/18/2004	Kenneth L. Peirce JR.	99-081-C	9545

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EXAMINER	
LAEKEMARIAM, YOSEF K	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/804,593	PEIRCE ET AL.	
	Examiner	Art Unit	
	YOSEF K. LAEKEMARIAM	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *03/18/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 14-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 6,515,974) in view of Hong et al. (US 6,359,894).

Regarding claim 14, Inoue discloses a platform for providing home agent services in a network (Col.1 lines 16-26; Inoue discuses a router device, therefore a platform), the platform comprising: an interface to a first network (Col.4 lines 45-46); at least one virtual interface to a second network (Col.4 lines 45-47); and a single chassis that includes software and hardware (Col.21 lines 31-44), the software implementing a sorting module (Col.12 lines 1-8 and Col.19 lines 36-44) and two or more software-replicated home agents associated with the at least one virtual interface (Col.13 lines 34-45; Inoune discuses home agent 5 and home agent 6, therefore software replicated home agents), forwards the plurality of packets to the two or more software-replicated home agents in accordance with information contained in the packets (Col.12 lines 18-41), and wherein the software implementing the two or more software-replicated home agents (Col.21 lines 31-33 and Col.Fig.5, 5 and 6) provides for the two or more software replicated home agents receiving network management packets for managing the operation of the two or more software-replicated home agents (Col.2 lines 9-52 and Col.20 lines 5-21).

Inoue discloses the invention set forth above except "the sorting module demultiplexes a plurality of packets arriving at the first network interface."

Hong however, discloses the sorting module demultiplexes a plurality of packets arriving at the first network interface (Col.1 lines 52-67, Col.6 lines 26-35, Col.23 lines 65-67 and Col.24 lines 1-2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Inoue, and modify a sorting module demultiplexes a plurality of packets arriving at the first network interface as taught by Hong, thus allowing more efficient method to demultiplexes a plurality of packets arriving at the first network, as discussed by Hong (Col.23 lines 65-67 and Col.24 lines 1-2).

Regarding Claim 27, Inoue discloses a platform for providing home agent services in a network (Col.1 lines 16-26), the platform comprising: an interface to a first network (Col.4 lines 45-46); at least one virtual interface to a second network (Col.4 lines 45-47); and a single chassis that includes software and hardware (Col.21 lines 31-44) implementing a sorting module (Col.12 lines 1-8) and two or more software-replicated home agents associated with the at least one virtual interface (Col.13 lines 34-45; Inoune discuses home agent 5 and home agent 6, therefore software replicated home agents), wherein the sorting module (Col.19 lines 36-44) and the two or more software-replicated home agents are implemented using a single set of machine executable code (Col.6 lines 46-55 and Col.7 lines 11-20), and forwards the plurality of packets to the two or more software-replicated home agents in accordance with information contained in the packets (Col.12 lines 18-41)

Inoue discloses the invention set forth above except "the sorting module demultiplexes a plurality of packets arriving at the first network interface."

Hong however, discloses the sorting module demultiplexes a plurality of packets arriving at the first network interface (Col.1 lines 52-67, Col.6 lines 26-35, Col.23 lines 65-67 and Col.24 lines 1-2).

Regarding Claim 32, Inoue discloses a method for providing home agent services comprising: providing a single chassis having machine executable instructions stored therein, the machine executable instructions (Col.21 lines 31-44), when executed, implementing a sorting module (Col.12 lines 1-8) and two or more software-replicated home agents (Col.13 lines 34-45; Inoue discuses home agent 5 and home agent 6, therefore software replicated home agents); receiving a plurality of packets from a first network at the chassis (Col.16 lines 53-61; Inoue discuses private network 1, therefore a first network); forwarding the plurality of packets to the two or more software-replicated home agents in accordance with information contained in the packets (Col.12 lines 18-41); forwarding the plurality of packets to at least a second network via at least one virtual interface (Col.12 lines 23-30; Inoue discuses packet relay device, therefore virtual interface); receiving a network management packet at a first home agent of the two or more software-replicated home agents (Col.2 lines 9-52 and Col.20 lines 5-2); and modifying operation of the first home agent in accordance with information in the network management packet (Col.19 lines 10-24).

Inoue discloses the invention set forth above except "demultiplexing the plurality of packets with the sorting module."

Hong however, discloses demultiplexing the plurality of packets with the sorting module (Col.1 lines 52-67, Col.6 lines 26-35, Col.23 lines 65-67 and Col.24 lines 1-2).

Regarding claim 39, Inoue discloses a platform for providing home agent services in a network (Col.1 lines 16-26), the platform comprising: an interface to a first network (Col.4 lines 45-46); at least one virtual interface to a second network (Col.4 lines 45-47); and a single chassis that includes software and hardware (Col.21 lines 31-44), the software implementing: a sorting module (Col.19 lines 36-44 and Col.21 lines 23-50); and two or more home agents associated with the at least one virtual interface (Fig.3, 4-6), and forwards the plurality of packets to the two or more home agents in accordance with information contained in the packets (Col.12 lines 18-41), and wherein the two or more home agents are implemented as distinct functional entities in the single computing platform (Fig.10).

Inoue discuses the invention set forth above except "the sorting module demultiplexes a plurality of packets arriving at the first network interface."

Hong however, discloses the sorting module demultiplexes a plurality of packets arriving at the first network interface (Col.1 lines 52-67, Col.6 lines 26-35, Col.23 lines 65-67 and Col.24 lines 1-2).

Considering claim 15, Inoue and Hong together disclose the platform of claim 14, Inoue further discloses the packets for managing the operation of the two or more software-replicated home agents are received via the at least one virtual interface (Col.2 lines 9-52 and Col.20 lines 5-21).

Considering claim 16, Inoue and Hong together disclose the platform of claim 14, Inoue further discloses the packets for managing the operation of the two or more software-replicated

home agents are received via the interface to the first network (Col.16 lines 53-61 and Col.2 lines 9-52).

Considering claims 17 and 33, Inoue and Hong together disclose the platform of claims 14 and 32, Hong further discloses the network management packets comprise Simple Network Management Protocol (SNMP) packets (Col.33 lines 35-36).

Considering claim 18, Inoue and Hong together disclose the platform of claim 14, Hong further discloses the network management packets comprise Common Management Information Protocol (CMIP) packets (Col.2 lines 48-50 and Col.10 lines 57-67).

Considering claim 19, Inoue and Hong together disclose the platform of claim 14, Inoue further discloses the software-replicated home agents is separately configured and managed via respective private networks with which the software-replicated home agents are associated (Fig.18).

Considering claims 20 and 34, Inoue and Hong together disclose the platform of claims 14 and 32, Inoue further discloses two or more software-replicated home agents are implemented as respective instantiations of home agent machine executable code (Col.21 lines 31-39).

Considering claims 21 and 35, Inoue and Hong together disclose the platform of claim 20 and 34, Inoue further discloses the respective instantiations of home agent machine executable code are implemented using a single set of machine executable instructions (Col.21 lines 31-44; Inoue discuses stored computer code, therefore machine executable code).

Considering claims 22 and 36, Inoue and Hong together disclose the platform of claim 21, Inoue further discloses wherein the single set of machine executable instructions further

implements the sorting module (Col.12 lines 1-8 and col.6 lines 46-52; Inoue discuses computer readable program code, therefore machine executable instructions).

Considering Claim 23, Inoue and Hong together disclose the platform of claim 14, Inoue further discloses wherein the sorting module is in included in software implementing a master home agent (Col.9 lines 62-67 and Col.10 lines 1-23; Inoue discuses home agent 5 which manages a movement, therefore a master home agent).

Considering claims 24 and 37, Inoue and Hong together disclose the platform of claims 14 and 32, Inoue further discloses the two or more software-replicated home agents are implemented as respective, operationally separate instantiations of a home agent software program (Fig.18;Inoue discuses HA-p1 and HA-p2, therefore two software-replicated home agents).

Considering claim 25, Inoue and Hong together disclose the platform of claim 14, Inoue further discloses the sorting module and the two or more software-replicated home agents are assigned a single IP address (Col.3 lines 1-15).

Considering claim 26, Inoue and Hong together disclose the platform of claim 14, Inoue further discloses the sorting module and the two or more software replicated home agents are each assigned individual IP addresses (Col.10 lines 6-19).

Considering claims 28 and 41, Inoue and Hong together disclose the platform of claims 27 and 39, Inoue further discloses the sorting module is implemented on a first computing entity in the single chassis (Col.14 lines 32-40; Inoue discuses home agent 5 which control data transfer, therefore sorting module) and the two or more software-replicated home agents are implemented on at least a second computing entity in the single chassis (fig.19).

Considering claim 29, Inoue and Hong together discloses the platform of claim 27, Inoue further discloses the two or more software-replicated home agents terminate network management packets (Col.22 lines 1-10).

Considering claim 30, Inoue and Hong together disclose the platform of claim 29, Inoue further discloses the network management packets are included in the plurality of packets arriving at the interface to the first network (Col.23 lines 19-29; Inoue discuses the first router device, therefore the router connected to the first network).

Considering claim 31, Inoue and Hong together disclose the platform of claim 29, Inoue further discloses the network management packets are communicated to the two or more software-replicated home agents from the second network via the at least one virtual interface (Col.20 lines 5-21 and fig.13).

Considering claim 38, Inoue and Hong together disclose the method of claim 32, Inoue further discloses the network management packet is received via a private network associated with the first home agent (Col.23 lines 11-14 and fig.18, 9).

Considering claim 40, Inoue and Hong together disclose the platform of claim 39, Inoue further discloses the two or more home agents are implemented as distinct software processing threads (Col.21 lines 31-39)

Considering claim 42, Inoue and Hong together disclose the platform of claim 39, Inoue further discloses each of the two more home agents are each associated with a respective virtual private network (Col.23 lines 57-63 and fig.18, 5-1, 5-2).

Considering claim 43, Inoue and Hong together disclose the platform of claim 39, Inoue further discloses each of the two or more home agents are implemented as respective, operationally separate instantiations of a home agent software program (Col.24 lines 24-54).

Considering claim 44, Inoue and Hong together disclose the platform of claim 39, Inoue further discloses at least two home agents of the two or more home agents are separately configured and managed via respective virtual private networks with which the at least two of the two or more home agents are associated, and wherein configuration and management of one home agent of the two or more home agents does not affect the operation of other home agents of the two or more home agents (Col.18 lines 4-7 and Fig.18).

Considering claim 45, Inoue and Hong together disclose the platform of claim 44, Inoue further discloses at least two home agents of the two or more home agents are configured and managed using network managements packets (Fig.19).

Considering claim 46, Inoue and Hong together disclose the platform of claim 44, Inoue further discloses at least two home agents are configured and managed by users of the respective virtual private networks (Col.13 lines 34-45).

Considering claim 47, Inoue and Hong together disclose the platform of claim 39, Inoue further discloses the two or more home agents are each assigned unique Internet Protocol addresses (Col.13 lines 29-33 and Col.22 lines 22-31).

Considering claim 48, Inoue and Hong together disclose the platform of claim 39, Inoue further discloses the platform comprises a router (Col.23 lines 19-24; Inoue discuses a computer function as a router, therefore a platform).

Considering claim 49, Inoue and Hong together disclose the platform of claim 39, Inoue further discloses the two or more home agents are segregated into separate address space in one or more computing devices included in the platform (Fig.3, 5, 6).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOSEF K. LAEKEMARIAM whose telephone number is (571) 270-5149. The examiner can normally be reached on Regular hours 8:30am-5:30pm M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AHMAD MATAR can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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05-23-2008